

VIRGINIA WILDLIFE

NOVEMBER 2002

TWO DOLLARS





Director's Column

William L. Woodfin, Jr

As I am writing this month's column, our state is still in a very serious drought situation. Regardless of where you may live in Virginia, it is certain you have heard much about the lack of rainfall, not only this year, but over the past several years. This lack of rainfall has not only created hardships for people that rely on wells for drinking water, but it has also had a significant impact on wildlife and forests. For the past several years as we approached hunting season, we have asked those going afield to be ever mindful of the dry conditions in our woods. This year is no different. The lack of moisture, combined with the fuel on our forests floor, create a situation for which we must all be mindful. Hunters can and do serve as an early warning system. This year, as we approach hunting season, we ask that you not only be careful about your own actions, but that you also remind others of their need to be careful while in the woods.

For hundreds of thousands of Virginians, November doesn't just have turkey day. For these folks, November brings deer days, grouse days, rabbit days, and many more great hunting days afield. With healthy populations of a variety of game species and thousands of acres of places to hunt, like Virginia's newest wildlife management area Big Survey, the opportunities in the Old Dominion abound.

Credit for many of these opportunities can be given to the professionalism, dedication, and hard work of Department staff. Exemplifying these characteristics is Wildlife Division Director Robert W. Duncan, who earlier this fall, was recognized by Return to Nature, Inc. for his contributions in natural resource stewardship. Executive Director of Return to Nature, Inc. Mike Roberts said of Duncan, "He is



William L. Woodfin, Jr. (left) and Mike Roberts (right) present Robert W. Duncan with the Dr. Leonard Lee Rue III Natural Resource Stewardship Award.

someone who truly loves and respects the natural environment and, through genuine concern, has raised the bar of awareness in regard to the importance of outreach education." Return to Nature, Inc. focuses on educating boys and girls about the vital importance of natural resource conservation and seeks to foster a deep appreciation of the need for responsible environmental stewardship to preserve nature for the enjoyment and benefit of future generations.

It is with the support of organizations like Return to Nature, Inc., we have success in working toward our mission. Another organization that I'd like you to remember as we go into the holidays is Hunters for the Hungry, which has been responsible for feeding the less fortunate in Virginia. Through the contributions of hunters and many, many sponsors, Hunters for the Hungry continues to make a difference, having provided more than one million pounds of venison to feeding programs since 1991. When we gather around our tables, we can give thanks for the opportunities not just to be able to experience great hunting, fishing, and outdoor adventures, but also to help others through our efforts. For more information about Hunters for the Hungry, please call 1-800-352-4868 or visit their Web site www.h4hungry.org.

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth, to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

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About the cover: Canebrake rattlesnake (*Crotalus horridus*) carved by wildlife artist Willy Wilmoth. The canebrake rattlesnake is listed as an endangered species in Virginia. It inhabits the forests and swampy areas of the lower Peninsula and the southeastern corner east of the Dismal Swamp. It is only one of two rattlesnakes found in Virginia, the other being the timber rattlesnake.

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Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

Nature's Silent Message



*"You must spend time
in nature to find the real
treasures in life."*



*Through art, Willy Wilmoth has
a message he wants to share.*

*A message he hopes
inspires each of us to look
more closely at our
natural surroundings.*

by Lee Walker

The words of Aldo Leopold, one of this country's best known pioneer conservationists, might best describe the work of Willy Wilmoth—wood carver, sculptor, and environmentalist.

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher standard of living is worth its cost in things natural, wild, and free."

Like Aldo Leopold, who greatly valued the wisdom he gained from nature, Willy Wilmoth has a message to pass along. Only his is not of the spoken word, but rather an attempt to place wildlife in the forefront for all of us to see. From his heart and through his hands Willy cuts, chips, and carves pieces of wood and stone to reveal a world that humans rarely see.

Born and raised in Chesterfield County, Willy has, for over half a century, used his self-taught talents to craft once breathing and growing grains of wood and hardened masses of stone into carved

Nicknamed the "butcher bird," the loggerhead shrike hunts from exposed perches looking for insects and rodents to feed on. Since they do not possess talons like a raptor, they will impale their prey on thorns, barbed wire, and other sharp objects to help with handling and eating.

message



and sculpted images of wildlife. Willy has always had a desire to explore the natural world, which has taken him as far away as the Australian Outback. During his yearlong stay he lived with a native tribe of nomadic Aborigines. It was there that Willy was taught the ancient art of how to "read the language of nature." It was a simple lesson of patience and learning to sit quietly and observe wildlife, a skill Willy feels that has been lost to progress and to our fast paced lifestyles. Willy now devotes his time to spreading



Left: The red-tailed hawk feathers and a deer antler carved by Willy are hard to tell apart from the real thing. Above: This life-size red-tailed hawk was made from a single block of walnut and carved to highlight the bird's detailed feathering.

the message and teaching others about the importance of the natural world around us. He wants people to know that it's important that we take the time to listen to wildlife and our environment before it's too late.

Willy's works of art are a study in time and reflect a message of the way animals communicate in nature. "I must see what I am going to carve, first hand in the wild, before I can clearly see it in my mind, whether it be as grand as a soaring red-tailed hawk or as sobering as a fox dying from starvation." Many of the animals that he has immortalized in wood are lesser-known species, like the loggerhead shrike or rattlesnake, which are often misjudged and ridiculed by their repu-

tation. Whatever appears when the thin slivers of wood or chips of stone fall prey to Willy's sharp carving knife, become objects to admire with the eyes, studied by the mind, and most importantly touched with the hands. "My sculptures are meant to be touched as much as they are meant to touch those who gaze upon them."

Willy's journey is one he says will never end. It's a quest that has allowed him to do what he loves and at the same time live a simple life. Most importantly it has offered him a chance to teach others about carving, wildlife, and our environment. His artwork and gift as a teacher have also gained him much acclaim, not only here in Virginia, but

"Learn to accept what nature has to offer, and don't try to change it to suit your needs."

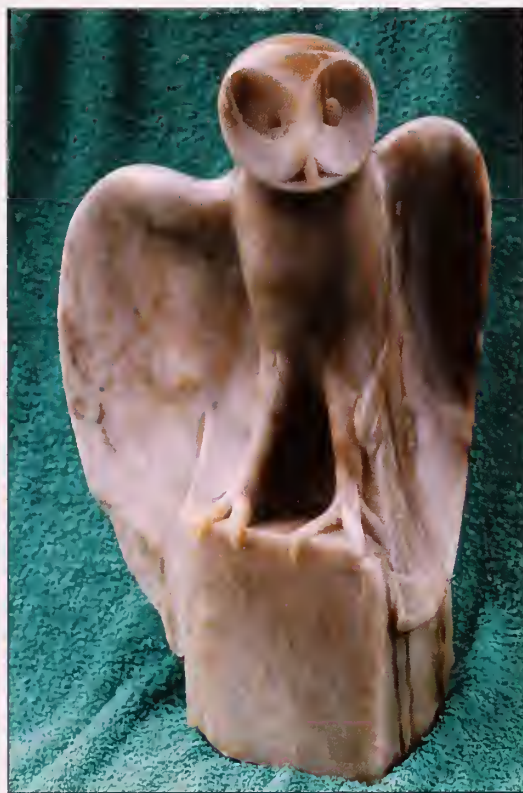


Top: Much of Willy's art, like this falcon created from wood, and this northern river otter (left) sculpted from a single block of alabaster, are designed not only to be looked at but to be touched. Photos by Lee Walker.



throughout the country. His carvings and stone sculptures have appeared in schools, art galleries, and museums, which currently include a display at the Virginia Museum of Fine Arts in Richmond that runs from October 5, 2002-January 19, 2003.

As you look upon a few of Willy Wilmoth's carvings and words of wisdom, take a moment to reflect on your relationship with nature and the environment, and whether your day-to-day actions are making a positive difference in the small world that we all live in. □



"We have become a society where time is fleeting away and those things that seem important are only a distraction from the real world that surrounds us."

Willy Wilmoth's carvings can vary from a hummingbird (the size of a thumbnail) to life-size animals, like the barred owl (right) or the black bear (below).

"We have to slow down and listen to nature before it's too late."





Willy's art, like this dying screech owl, often reflects nature's darker side where death and the struggle to survive are a fact of life for animals in the wild.

"It's important that people know the good and bad that nature offers."



Lee Walker



Lee Walker

Above: Willy spends a great deal of his time teaching others the joy of carving. Through his efforts, he hopes that people will gain a greater appreciation for wildlife and our environment. Below: The relationship that Native Americans have with nature has inspired many of Willy's carvings.

"Look for a higher power in nature, and you will be surprised what you may find."





Sweet Revenge

story by Mike Roberts
illustrations by Emily Pels

Only once in my life have I purposely vowed and plotted vengeful retaliation against a fellow sportsman.

Many years ago, on a memorable late-autumn day, the doors of opportunity swung open allowing me to finally repay my best friend with a double dose of his own medicine. The circumstances leading up to that precise moment in time remains one of my favorite outdoor memories.

In the cold, predawn hours of last year's deer season opener, I scrambled up a giant beech to my stand some 60 feet above a steep ravine. Hope was that sometime during the day a whitetail buck would sneak through the thick corridor of honeysuckle below in an attempt to escape hunters on the adjacent farm. This same plan had paid off nicely in each of the five previous hunting seasons.

After pulling an overloaded backpack and rifle up the tree, I painstakingly removed a pair of noisy boot blankets from the pack and slowly slipped them over my frost-covered boots. Fumbling blindly through

binoculars, bullets, and provisions enough to get me through the entire day, I found the wool balaclava that was sure to protect my face from the high winds that had been forecast. Upon squirming into insulated bibs and an oversized coat, I again reached into the pack. This time my cold fingers felt the welcomed warmth radiating from two activated hand-warmers zipped inside a muffler.

Cozy as a cat sleeping in front of a fireplace, I settled down to await the arrival of another opening day, which seemed just as exciting as my first one had over 30 years ago. With nearly an hour remaining until legal

shooting light, there was now time for studying stars and to listen for the calling of mysterious night birds. Above all else, this was quality time to ponder life without the plaguing interruption of telephones, faxes, and e-mails. I had deliberately planned it that way!

Sitting there like a Cabela's poster child, and layered to withstand practically anything that Mother Nature could dish out, I thought about how much deer hunting had changed over the years. Three decades ago my hunting clothes were fabricated out of cotton material; the only woolen garment I owned was a Sunday suit that Mother made sure was worn at least once a week. Jim Crumley was yet to stage his great American camouflage revolution. Raingear was noisy plastic, while waterproofed boots reeked of smelly oils. Archery was recurves, cedar shafts, feather fletching, and razorheads. Portable treestands were homemade and safety belts had obviously not been invented. Hunting was recreation, not a gadget market or a science governed by the lunar phases. And you could still get lost in the woods of Bedford County.

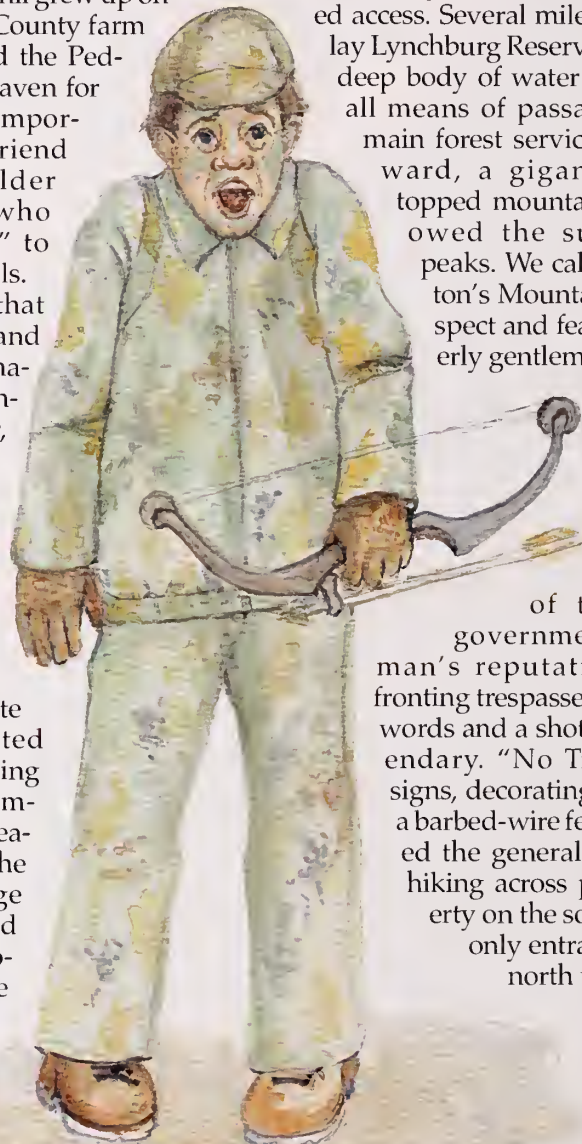
But in having a choice of hunting methods, as in choosing between oil lamps and electricity, I'll take the new and improved version. Besides, I have sufficient memories of numb fingers and cold feet. However, those physical sacrifices were a small price to pay for recurring thoughts of days long gone when chasing whitetails was simple and fun. And so, while waiting for dawn, I retraced the events that led up to one of my most unforgettable days afield.

Although I never had a real brother, Phil Davis would have been my first choice for one. As new hires at Babcock and Wilcox in 1970, we became friends from the first day on the job. Phil was a pleasant sort of individual who could perform any task with the greatest of precision. As luck would have it, through asso-

ciation, I latched onto his work ethics and somehow managed to adjust to a foreign world of quality control. During those endless twelve-hour shifts, our friendship was molded out of a common interest for the great outdoors.

Hunting white-tailed deer was relatively new to me, having taken my first buck in November of 1969. But I was rightfully proud, since only 103 deer were legally checked in Bedford County that year. On the other hand, Phil grew up on an Amherst County farm that bordered the Pedlar River, a haven for deer. More importantly, my friend had four older brothers who knew "how" to hunt whitetails.

Through that first spring and summer of native trout fishing together, the two of us talked ourselves into a maddening anticipation of autumn. Many a paper pie plate was ventilated while preparing for the upcoming archery season. When the calendar page finally flipped over to October, we were ready.



From the beginning Phil suggested that we target a particular piece of terrain located in the George Washington National Forest—a secluded place his brothers had hunted on occasion. Not only was this region rugged, it was tough to get to. The road used to transport timber out years earlier was growing up and terribly eroded. There were streams and gorges with ancient wooden bridges to cross, but Phil had a Jeep and loved the challenge.

The key to this area was its limited access. Several miles to the west lay Lynchburg Reservoir, a narrow, deep body of water that blocked all means of passage from the main forest service road. Eastward, a gigantic, sharp-topped mountain overshadowed the surrounding peaks. We called it Hamilton's Mountain, out of respect and fear for the elderly gentleman who daily patrolled the line of marked trees separating his land from that of the federal government. The old man's reputation of confronting trespassers with harsh words and a shotgun was legendary. "No Trespassing" signs, decorating the posts of a barbed-wire fence, prevented the general public from hiking across private property on the south end. The only entrance from the north was down an

old logging road, but one look at that incline discouraged most travel. Even for the few hardy souls who dared, the decaying bridge over the creek caused them to reconsider. We had this neck of the woods all to ourselves.

The forestland there was a mixture of hardwood trees and white pines, bordered by large tracts of regenerating clear-cuts. One needed not to be a bi-

ologist to recognize the potential of this bountiful edge habitat. Buck rubs and scrapes graced every ridge that overlooked Pedlar River, while turkey scratchings were commonplace throughout the stands of mature oaks. Hand-sized tracks and scat confirmed our suspicions that black bears roamed the deep hollows, too. Impenetrable thickets of greenbrier and grapevines were nothing short of grouse heaven. We had discovered a wildlife bonanza and its location was to remain our secret!

That first archery season found us making regular weekend excursions to the isolated mountain. What that meant for me was leaving home at 3:00 in the morning for an hour commute to Phil's place. Then, it was another half-hour drive to the national forest, not to mention forty-five minutes of slipping and sliding down the access road. After parking, we had a mile hike through the darkness to our treestands.

Phil could sit patiently in his stand for hours, but I could not. Usually by nine o'clock my feet were back on the ground hauling me up and down the steep mountainside at a pace that likely spooked every deer in the woods. Consequently, I was always first to arrive back at the vehicle for lunch. Now, there are few things in life as relaxing as lying on the ground and nodding off in the warmth of the noonday sun, especially after driving half the night to chill to the marrow in a treestand. Each Saturday I looked forward to such a nap, and that's where the problem started.

As good of a guy as he was, Phil had a nasty habit of pussyfooting back to the Jeep to catch me

asleep. Quietly stalking to within three or four yards of where I lay passed out, he would stomp the ground and snort loudly like a startled deer. In a frightened stupor, I would jump up and grab my bow before realizing what was going on.

Phil would then sink to his knees in disgusting laughter, while my heart pounded like rapid cannonfire. This man was having the time of his life at my expense.

All too soon the season ended. Even though there had been more deer sign in that place than anywhere I had ever set foot, neither of us

When it comes to seeking revenge, even the best of plans can run astray.



took a respectable buck. Regardless, we had fun and learned a thing or two along the way.

Throughout the following summer, we planned our strategy for the next hunting season like two veteran Army generals plotting a war. In an overwhelming concentration on trophy bucks, my burning desire to avenge the grudge melted away like frost kissed by the morning sun. I completely forgot about the problem until the first day of bow season when Phil caught me off guard again. And that's when I got serious about the situation. Something had to be done to teach him a lesson.

Ironically, Phil was frightened out of his wits a few days later, although I had absolutely nothing to do with it. While exploring an old drag road that cut through a wildlife clearing, the promising trail ended abruptly in a briar patch. As he was attempting to back out of the tormenting blackberry vines and locust saplings, Phil heard a commotion in the leaves nearby. To his surprise, two big black bears were headed directly toward where he stood hopelessly entangled in the thorny mess. Feeling quite helpless, without an arrow nocked, Phil remained motionless as the furry creatures passed at little more than an arm's length away. It was said later that the recurved bow he was white-knuckling seemed somewhat inadequate. One might suspect that after such an experience a man of Phil's character would have altered his conduct, but a week later he scared me senseless again.

Over the next few trips to the mountain I looked for every possible avenue of getting back at Phil, but to no avail. My friend was as sharp as a tack and time was running out again. There was one Saturday remaining in archery season.

Somewhat disappointed, neither of us had taken a shot at a buck during the entire season, but there was hope for the last day. Walking in with the aid of a flashlight that morning, I was encouraged by a

huge set of fresh hoof-prints in the muddy road near an abandoned homestead. We had seen these same tracks many times, but had not laid eyes on the animal. Continuing on, I reached my tree and made the dreaded climb. About the middle of the morning curiosity got the best of me and down I came.

Sometime later, after the sun had cleared the top of Hamilton's Mountain, I reasoned that most deer had bedded for the morning and that perhaps it was best to head back to the Jeep for lunch. Rounding a bend near the home place, I spotted movement up ahead and immediately stopped. That's when I saw him standing in the roadway. No, not the big buck, but Phil Davis leaning against his bow and staring down at the tracks I had seen earlier.

Quickly stepping out of the road and behind an enormous white pine, I peeked out just in time to see Phil heading my way. With lingering thoughts of the recent bear incident, an evil scheme was quickly formulated into a vicious bruin attack. Watching his approach with the intensity of a starving predator, I was careful not to make direct eye contact. Slowly bending over, I picked up a good-sized, dead pine limb that would come in handy for creating noise. The assault had to come at precisely the right moment for maximum effect. At last, I had him dead to rights!

When Phil had closed the gap to within a step or two, I slammed that dead stick against the tree and it cracked like a rifle shot. With full-lung capacity, I then released a bloodcurdling, grizzly-like roar and crashed through the underbrush toward my unsuspecting victim. In an instant Phil's arms fell lifeless to their respective sides and his mouth flew open like a window shutter in a windstorm. The pathetic look on his face when I cleared the bushes was a sight never to be forgotten. Behind the brown and green splotches of Fred Bear camouflage facial paint was the pale white skin of a man

whose heart had all but stopped pumping blood to the body. The debt was paid in full!

But, there was one small problem—the man standing less than two feet away was not Phil Davis. Somehow, a stranger had wandered onto our mountain. In my haste to get even, I never once thought about the possibility of another hunter being there. It was a clear case of mistaken identity. Embarrassed and feeling about two inches tall, I attempted to offer an apology to the gentleman, but the only words that came out were, "I'm sorry, sir. I thought you were someone else." Without a reply, the man turned and walked away. And that's the image which remains forever locked in my mind.

As suspected, Phil got down on the ground laughing when he heard the story. In retrospect it was amusing, but somewhere in this world today there is a woman who still questions why her husband gave up the sport that he lived for. Neither can she understand why, in the middle of a hunting season, he carried all of his gear to the flea market. What could have happened that made him cancel the sacred subscriptions to *Outdoor Life* and *Field & Stream*? And why the sudden interest in golf?

From somewhere across Otter River, a rooster interrupted the memory with his announcement of a new day. Straining to see the hands on my watch, I knew that, by now, Phil Davis was sitting comfortably in his newfangled portable stand two ridges away. Below me, a deer moved cautiously through the honeysuckle and all thoughts of revenge faded with the hopeful expectation of things to come.

Did I ever settle the old score? You bet, but that's another story for another day! □

Mike Roberts is an accomplished writer and wildlife photographer. He is also executive director of Return to Nature, an educational outreach program that teaches children throughout Virginia about our natural and wildlife resources.



The Cutting Edge

If you hunt, fish, or enjoy spending time in the outdoors you know the importance of owning a good knife. Knowing how to choose a knife for the right conditions is a serious matter that takes some time and knowledge.

by Tom Barnett

Primitive man's knives were made the same way as arrowheads. Stone was pressure pointed to chip away rock, breaking it into sharp serrated edges. Over the centuries, the cutting edge evolved to bronze, iron, and then steel. Knife handles were made of wood, bone, or antler. Ironically, a significant portion of today's knife market demand is for partially serrated blades. Some of the more expensive knife handles today incorporate once primitive components as select woods, bone, and antler.

Many of today's knife blades are high-tech stainless steel. Modern quality blades have Rockwell Scale hardness ratings. Many are cut out by lasers, and incorporate improved edge retention steel. Man's personal touch is still required to manufacture a knife. Grip selections are better than ever. Knife handles are fre-

quently ergonomic, textured, space-age plastics, synthetics, and composites.

Knife Styles

Knives are either straight or folding. When open, folding knives are as big as straight knives. Folding knives are oversized pocketknives and normally single bladed. Folding saves space, and the handle becomes a sheath. Large folding knives and straight knives are usually carried in leather or synthetic sheaths on the belt. A locking mechanism is a must for folding knives. A variety of new safety oriented locking mechanisms for folding knives have recently become available. Straight and folding knives are made in a large variety of sizes, grades, and blade designs. There is an affordable, quality knife designed for everyone's needs.

Obviously pocketknives fit into your pocket. They come in literally hundreds of sizes, styles, colors, and blade configurations. Most have double or triple blades. They serve a utilitarian purpose.

New Generation Knives

Manufacturers have responded to recent consumer demand by creating huge selections of new generation knives in both straight and folding styles. These highly versatile knives incorporate traditional design with new technology. Blade configurations offer partially serrated edges. Sharp serrated blades cut through coarser materials more quickly than traditional edges. Many scuba divers and rescue personnel prefer the new generation features. The serrated edge easily cuts through cord, rope, and seatbelt straps with less effort than smooth blades. Several manufacturers offer these blades with chisel points.

Quick, easy opening and easy closing, one-handed opening pocketknives have emerged. Some quality knives offer ball bearing pivots to smooth movement. Space-age component handles are impact resistant, ultralight materials. The quantity of choices in design is mind boggling. Also, clever "clip knives" that clip into your pocket or belt have evolved. Knives have become both very generalized and specialized towards their intended uses.

Purchasing a Knife

There are a lot of factors to consider when purchasing a knife. Is it a hunting knife? Is it for big game or small game? Is it for work? Is the buyer on a budget? Is edge retention important? Is it a fishing knife or for water sports? Does the manufacturer's warranty make any difference? They vary from one year to lifetime.



The author, using his favorite pocket-knife, enjoys the simple pleasure of whittling.

Schrade's "Uncle Henry" knives are guaranteed against loss for one year.

Knives are generally purchased based upon personal preference and intended purpose. Some buyers look before they buy. Few will purchase without handling the knife. It is a touchy-feely experience.

While there are many brands to choose from, four companies manufacture the majority of knives in the US. They are: W.R. Case since 1889,



When choosing a knife there are two styles to look for: folding blades (above) and straight blades (opposite page).

Buck since 1902, Imperial Schrade since 1905, and Gerber since 1939. Schrade's product line includes "Uncle Henry," "Old Timer," and "Tradesman" cutlery. Other well-known manufacturers are Bear, Browning, SOG, Berretta, Benchmade, Cold Steel, and Spyderco. Swiss Army knives are very popular and good sellers, especially around Christmas. Numerous custom knife makers are in Virginia.

Hardening the Steel

Buck recommends, "Match the steel to the task." Buck shared their hardening process. Heat is the process by which mill steel is prepared to make it suitable for knife blades. For example, Buck begins with annealed 420HC stainless steel. The heat-treating process brings the blades to ideal hardness for edge retention. Blades reach a temperature of 2,000 degrees, and then are lowered into the deep freeze at 120 degrees below zero! In a three-step process, blades are again heated in an oven to 350 degrees up to 900 degrees (depending on the steel). Once appropriately hardened, the rigorous process of edging begins. Steel properties vary hence does performance.

Ionfusion Technology

Two years ago, Buck began manufacturing Ionfusion knives. The specially coated knife is a champagne color, and is sharper out of the box than their already very sharp products. I have used and compared an Ionfusion folding knife afield and at home. After using it to process numerous deer from pajama removal to the freezer, the blade has been lightly retouched for sharpness. Ionfusion performance is fantastic. They are sharpened on only one side. Buck's newest technology is slightly more expensive than standard models.

A long, thin blade is designed to make cleaning and filleting fish easier.

©Soc Clay





Buck Knives patented the Zirconium Nitrate fusion to their 420HC stainless blades. Ionfusion blades advertised to hold an edge at least five times longer than standard blades. After going through a 12-step robotic cleaning process, the blades are placed into a Physical Vapor Deposition chamber where the Zirconium Nitrate is molecularly fused to the steel blades. The results are blades three to four times harder than steel! The process makes the edge so hard it surpasses 80 Rockwell C, the top of the scale. Then the blades are edged on the single side.

More high-tech will be incorporated into the product race between the quality knife manufacturers.

Consumers will enjoy the improved products.

In recent years folding blade knives have become very popular. People who enjoy spending time in the outdoors find them very handy, because of their size and utility.

Blade Steels

The steel used in knife blades by the four major U.S. knife manufacturers vary greatly. Easy to sharpen steel is soft. Soft steel does not hold an edge as long as higher quality hard steels. The higher grades of steel require less re-sharpening. There are many grades of stainless steel. Manufacturers seldom state the grade of the steel used in pricey knives. Just because "High Carbon Stainless Steel" is stated, it does not mean the highest steel grades are used in the knife being offered. Some stainless steels will rust.

Many knives are designed as works of art and sought after by collectors.



©Tom Barnett

Handle Materials

A wide variety of natural and man-made components are used for knife handles. The major manufacturers have over-lapping usage with many of these materials.

Natural component materials can be laminated, or stained. Rich grades of wood can be beautiful. Natural includes animal materials. Antler, horn, bone, and leather are currently being used. W.R. Case offers genuine mother-of-pearl pocketknife handles. Case's traditional stacked leather handles are still available on their fixed blade knives.

Space-age materials frequently have trademark names, and the advertised names are: Kraton, Zytel, Staglon, Delrin, and Phenolic. Additionally, glass reinforced nylon, aircraft grade aluminum, rubber, carbon fiber, plastics, and thermoplastics are being used. Most artificial materials have traits that make them desirable for tough jobs because they are impact resistant. Others are stainable, millable, or moldable at a price. Some work better on straight knives and others on folding knives. Many thermoplastics are on water sports or filet knives for enhanced gripping when wet or slimy.



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A sharp knife is a safe knife—when handled properly.

Sharpening Tips

Each manufacturer has their own recommendations for how to sharpen their products. The harder grades of steel are easier to resharpen for some people and the softer grades for others. There are many types of sharpeners. Extreme caution should be exercised to avoid accidental in-

continued on page 21

OUTDOOR CATALOG



*Virginia
Wildlife*

Virginia Wildlife OUTDOOR



VW-31

Mantel Clock

This decorative mantel clock is crafted of solid cherry wood, beautifully engraved with a deer in a wildlife setting on the base of the clock. The clock face displays the VDGI logo. This attractive collectable is available in limited quantity. Measures approximately 6 1/2" x 4."

Item VW-31. \$29.95



VW-32



VW-33

Desktop Cardholder with Clock

This attractive desktop accessory with clock has been crafted of solid cherry and has been beautifully engraved. Two styles are available, hummingbirds or the bald eagle. Measures approximately 2" x 4 1/2".

Item VW-32 (hummingbirds) or VW-33 (eagle). \$14.95



VW-30

2002 Limited Edition Virginia Wildlife Knife

The third in our series of limited edition *Virginia Wildlife* knives has been customized by Bear Cutlery and made in the USA. Each knife is serial numbered, has the Virginia Department of Game and Inland Fisheries distinctive logo engraved on the holster and has *Virginia Wildlife* etched on the blade. This attractive folding knife has genuine stag handles and is approximately 9 inches when fully opened. Each knife comes in a solid walnut gift box. A limited quantity of our 2001 edition knife is still available.

Item VW-30 (2002 knife). \$75.00

Item VW-14 (2001 knife). \$75.00



VW-34



Five piece Coaster Set

Made of solid cherry, this attractive set of 4 wooden coasters is packaged in a customized wooden box, engraved with a cardinal on a dog-wood branch.

Item VW-34. \$24.95

CATALOG



VW-35

Yellow Lab Pups Tapestry Throw

Created from a photograph by Virginia photographer Dwight Dyke, these five Lab pups lay about in the warmth of their basket alongside the tools of their trade. This tapestry throw, created exclusively for VDGIE, is triple jacquard woven of 100% cotton, machine washable, and measures approximately 52" x 69."

Item VW-35. \$44.95



VW-36

Matching Yellow Labs Tapestry Pillow

Item VW-36. \$19.95



VW-40

VW-39

Virginia Wildlife Hats

Our two new *Virginia Wildlife* hats are 100% cotton and size adjustable. These attractive hats have been embroidered with our *Virginia Wildlife* magazine logo and feature either a deer or a bass for the wildlife and fishing enthusiast. Hats available in High or Low Profile.

Item VW-37 (low profile - bass), VW-38 (high profile - bass), VW-39 (low profile - deer), VW-40 (high profile - deer), VW-9 (low profile - *Virginia Wildlife*), VW-8 (high profile - *Virginia Wildlife*) \$11.95 ea.



VW-38



VW-37



VW-9

VW-8

Pocket Timepiece

VDGIF offers once again our elegant timepiece.

Each watch has been crafted especially for VDGIF by the Jules Jurgensen watch company. These fine collectables are available with either a stag or an eagle and each watch carries the VDGIF logo on the dial.

Very limited quantities available. Watches are sold on a first come basis.

Item VW-11 (stag) or VW-12 (eagle). \$75.99



ORDER FORM

Item	Description	Price	Quantity	Subtotal
VW-8	High Profile <i>Virginia Wildlife</i> Hat	\$11.95		
VW-9	Low Profile <i>Virginia Wildlife</i> Hat	\$11.95		
VW-11	Pocket Timepiece, Stag	\$75.99		
VW-12	Pocket Timepiece, Eagle	\$75.99		
VW-14	2001 Limited Edition Knife	\$75.00		
VW-16	Custom Walnut Plaque	\$24.95		
VW-26	Medallion Key Ring	\$ 5.00		
VW-30	2002 Limited Edition Knife	\$75.00		
VW-31	Mantel Clock	\$29.95		
VW-32	Desktop Cardholder/Clock, Hummingbird	\$14.95		
VW-33	Desktop Cardholder/Clock, Eagle	\$14.95		
VW-34	Five Piece Coaster Set	\$24.95		
VW-35	Lab Tapestry Throw	\$44.95		
VW-36	Lab Tapestry Pillow	\$19.95		
VW-37	Low Profile Bass Hat	\$11.95		
VW-38	High Profile Bass Hat	\$11.95		
VW-39	Low Profile Deer Hat	\$11.95		
VW-40	High Profile Deer Hat	\$11.95		
VW-99	Shipping and Handling	\$ 6.25		6.25
		total amount enclosed		

Name _____ (please print)

Address _____

City _____ State _____ Zip _____

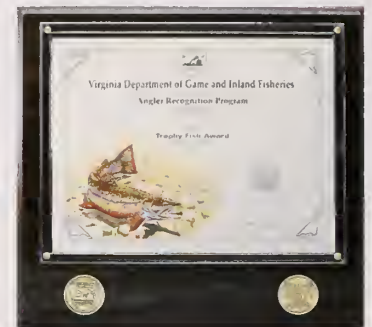
Payment Method: ☐ Credit Card ☐ Check/Money Order

☐ Visa or ☐ Master Card

Do not leave spaces between numbers _____ Exp. Month _____ Year _____

Credit Card Customer Signature _____

Make check payable to Treasurer of Virginia, fill out form, clip, and mail to Virginia Wildlife Outdoor Catalog, VDGIF, P.O. Box 11104, Richmond, VA 23230-1104. Please allow three to four weeks for delivery.



VW-16

Custom Walnut Plaque

Display your trophy fish or hunting certificates as well as other awards with this custom plaque. Each plaque contains two medallions commissioned by VDGIF. Plaques are available in walnut.

Item VW-16. \$24.95



VW-26

Medallion Key Ring

Secure your house or car keys with our medallion key ring. Each medallion displays the VDGIF logo.

Item VW-26. \$5.00

jury while sharpening. For many people, the greatest challenge during sharpening is maintaining a uniform angle with countless draw strokes over a stone. When reversing the knife for the opposite side, the challenge begins anew. Dull knives have a tendency to be more dangerous than sharp knives. More pressure is usually exerted while cutting causing forced awkward motions. One slip can be disastrous. Knives are to be used safely and wisely.

Knife Collecting

The popularity of knife collecting and trading has grown rapidly the last several decades. Many people already have the beginning of a collection. Knives usually are not as expensive as antiques, coins, firearms, or decoys. One never knows when a rare beauty will show up at a garage sale or a flea market. Knives have always made great gifts and they have served a utilitarian function.

There are numerous reasons why people select the knives they collect. All are a matter of personal taste. Some people desire a certain manufacturer. W.R. Case, founded in 1889, probably has a greater following than most other brands. There is even a Case knife collecting club.

What to Collect

There is a certain something that creates a passion within a collector for a particular style of knife. Usually, collectors desire patterned knives, certain handle materials, promotional, or specialty knives. Recently, limited edition knives have gained



©Tom Barnett



©Tom Barnett

popularity with collectors while boosting the manufacturers' business. Out-of-production knives have quite an appeal. The older and the longer since a knife was produced makes it more difficult to obtain. The value of a knife is based upon the old law of supply and demand as well as condition.

Condition

Condition is important. Grading is usually as *mint*, which has never been carried or sharpened. *Excellent* is a knife that closes with a snap (pocketknife) and shows only light wear. *Very good* probably has only about 25 percent wear and offers clear stampings. *Fair* is a 50 percent knife. It may have weak stampings, cracks, or a mushy appearance. *Poor* is with broken handles, rust, and well worn.

The Virginia Department of Game & Inland Fisheries has had limited edition (numbered) knives for three consecutive years. Some

are still available and make wonderful Christmas gifts. □

Tom Barnett is an outdoor writer and photographer from Glen Allen, Virginia. He is an avid hunter and collector of hunting memorabilia.

Manufacturer Information

Buck Knives:
www.buckknives.com

Buck Collector's Club
1-800-326-2825

Gerber Legendary Blades:
www.gerberblades.com

Imperial Schrade:
www.schradeknives.com

W.R. Case & Sons:
www.wrcase.com

Case Collector's Club
1-800-523-6350

Bear:
(256) 435-2227



In 2000, VDGIF began a series of numbered, limited edition knives. With the popularity of collecting, the first in the series quickly sold out. Limited numbers of the 2001 (left) and the new 2002 knives (below) are available and can be ordered through the Outdoor Catalog in the October and November issues of *Virginia Wildlife* magazine.

Predators Get a Bum Rap

by Carol A. Heiser
illustrations by Spike Knuth

The ecological food web is like a well-oiled, well-maintained machine. All the parts fit together smoothly, and systems run in tandem with each other. If a part of the machine breaks down the consequences can start a chain reaction that ripples through the other parts. In the natural world, the "machine" is an orchestrated system of checks-and-balances called *predator-prey* relationships. Each member of the wildlife community either preys upon or becomes the prey of some other species. Some songbirds and small mammals eat insects; some snakes eat small mammals and birds; hawks and owls eat other birds and snakes. . . You get the picture: it's a dog-eat-dog world out there. Predation, or who eats who, is one of the cornerstones of the food web that keeps animal populations under control and removes diseased or weakened individuals from the gene pool.

This is a good thing. Think about it. If all of the eggs that wild birds ever laid would actually make it to the hatchling stage, there would not be enough food resources to support the young. Small mammals and snakes perform a service by preying on many eggs, and raptors, like hawks, will prey on nestlings or adult birds. Predators make efficient use of the surplus. If predatory wasps and spiders were not around to prey on other insects, we'd be overrun with leaf munchers and wood chewers. The eventual repercussion would be

massive plant defoliation, and subsequently, an effect on birds and mammals which rely on those same plants for food and cover.

Shoot First, Ask Questions Later?

Unfortunately, predator control is ingrained in the American psyche, and predators have an undeserved reputation for being "bad" animals. One can still hear quips like "the only good snake is a dead snake," or, "we should be able to shoot the hawks because they're eating all the rabbits." The implicit, but erroneous assumption, is that there must be too many predators. Many people incorrectly believe that federal laws which protect hawks and owls must mean that their numbers have increased. On the contrary, the numbers of most migratory species of hawks and owls continue to decline, with only a few species having reaped benefits.

Aside from the fact that shooting hawks or other raptors is illegal, negative views like those mentioned above are short-sighted. They fail to recognize the value and role of predators, the mutual dependence between predators and prey, or the reality that removing all of the predators from an area does not significantly improve small game numbers anyway. Eradication does not work, because eliminating one predator species merely increases the percentage of other predators that will fill the void. In fact, the real culprit is the deterioration or loss of habitat, not an overabundance of predators.



Small animals, like this deer mouse, play an important role in the predator-prey relationship by eating small insects and then themselves becoming food for larger animals and birds.



Wanted: Habitat

Suitable habitat is needed for any animal to live out its life and successfully raise another generation. What is "suitable"? It refers to the quality of food sources, the availability of adequate escape and winter cover, and the arrangement of plant material in areas used for nesting and rearing young. Too often, habitats have been broken up or fragmented into little pieces or islands and interspersed with areas that are either barely usable or are completely unsuitable for the particular animals in question. In these situations, prey animals are forced to live on marginal habitat, are more vulnerable while breeding, and are not as likely to escape predation. The effects of predation are, therefore, more significant in poor habitat. Predators gain the upper hand, and the net result is a decline in the numbers of some prey species in those areas.



Quail and Predators: *a Balancing Act*

Getting a realistic picture of all these interactions is a tough task, and wildlife biologists sometimes resort to creative detective work to learn the true condition of animal populations in an area. Recently, biologists at the Virginia Department of Game and Inland Fisheries completed the field work of a four-year study on quail, an important indicator species of grassland habitats whose numbers have been declining since the early 1900s.

Quail have a short life span and rarely live to one year. Over 77 percent of the quail popula-

tion in autumn is made up of young birds hatched that year. Biologists had to figure out if low quail numbers were the result of too many adult quail being lost, not enough young being hatched, or some combination of both scenarios.

The detectives set about their work. Their mission: determine the survival rate of quail and find evidence of nest predation that might be impacting the total number of birds. The setting: 30 farms in Virginia's piedmont and coastal plain. The players: 429 bobwhite quail (23 percent adults, 77 percent juveniles), temporarily trapped in order to equip each of them with a "necklace" outfitted with a radio transmitter and antenna. The plot: follow the quail around and monitor their nests and numbers.

Every day during each breeding season, the biologists steadfastly followed their subjects and checked their nests, regardless of 100 degree heat, inclement weather, or bug bites. What they found was astonishing: 39 percent of the adult birds which had hatched a brood died within 10 days of their eggs hatching. Out of the 102 nests that were monitored, only 33 percent of them hatched one or more chicks. Moreover, 13 adults of the 102 died on the nest.



To better understand why the number of quail have been declining in Virginia, VDGIF biologists have been using small radio transmitters to monitor their nesting habits and movements.

The mystery thickened. Treating each nest like a mini crime scene, they discovered that some nests showed more damage than others. Some had only a few eggs missing, some had bits of eggshells scattered about, and still others had no eggs at all. The biologists upped the ante. They installed remote control cameras at many nest sites. These cameras, which operate 24 hours a day, have an infrared sensor which detects

the body heat of mammals. When an animal trips the sensor, its picture is taken.

Caught in the Act

Suspects immediately emerged. The number one animal they photographed was the opossum. A messy eater, this nocturnal slowpoke bites into the shell to expose the yolk and either eats the whole thing or spits out the shells. Usually a possum would eat most of the eggs in the nest, but sometimes it would get its fill before finishing the meal and would leave one or more behind.

Number two on the list was the striped skunk. This predator leaves the nest in disarray and tramples the nearby vegetation. A skunk is also a leisurely eater, preferring to lie down, hold an egg near the ground, bite into it to expose the yolk, then slowly lick out the contents.

Other predators implicated by the cameras were raccoons and gray foxes. Raccoons ate most of the eggs whole and somewhat displaced the

nest material, while foxes carefully removed one egg at a time with their teeth, taking each of the eggs separately to another location and leaving the nest intact.

Predators vs. Habitat

By now the intelligent sleuthing had led to even more questions. Would it make any difference to quail numbers if we try trapping all the predators in the study area? What if we improve the habitat in that area? What if we do both?

Comparison studies were conducted over the four years using different scenarios to answer these questions. In one setting the biologists conducted trapping only, using leghold, cage, and egg traps to remove predators. In a second setting they made habitat improvements only, such as better field borders. The third setting entailed doing both predator control and habitat improvements. Throughout their studies, they employed simple sand tracking stations (see page 25) to get an index of the abundance of animals using the areas. Another technique also used was a quail covey call survey, in which the researchers went out two mornings at each farm in mid-October for four years, half an hour before sunset, to count the number of quail proclaiming territory.

Once data collection was complete and the "jury" reviewed the case, a "verdict" was finally reached: blaming predators alone is not the answer. There was no significant increase in the number of quail coveys where only trapping was done, because predators continue to move in from surrounding areas, and it is virtually impossible to remove all of them. The area which showed the greatest increase in the number of quail coveys was where both predator control and habitat improvements had been done. Benefits were also documented in the area where habitat improvement alone had been the changing factor.

By using remote control, infrared cameras at night, biologists have found that numerous predators, which include the striped skunk (left) and opossum (next page) were regularly raiding quail nests and eating their eggs.



Managing Habitats to Reduce Predation

What it all boils down to is habitat, and in most cases the cover that's lacking. Without adequate cover to breed, raise young, or survive winter, wildlife has a tough time maintaining its numbers. Food is not usually the limiting factor. Ironically, landowners who plant *isolated* food plots to encourage small game like quail and rabbits may be unwittingly contributing to their decline. Field evidence shows that food plots are most beneficial *when located adjacent to thick cover*, because adequate escape cover is crucial to wildlife survival. All the food in the world won't make a bit of difference if animals have no where to hide when a predator comes through, or if they can't conceal their nests sufficiently to raise their young.

Suitable cover can take the form of thickets, masses of shrubs, wide corridors (greater than 50 feet) of vegetation between fields, or large expanses of tall plant material like native warm-season grasses. Plants such as indiangrass, switchgrass, and big bluestem are good choices for open fields because these species grow in clumps and have open spaces between the plants where birds and small mammals can forage. The height of plants is also important; tall plants provide cover *overhead* that shields small game from the sharp eyes of hawks. Finally, the arrangement of the habitat elements and habitat types is key: grasslands, field borders, shrub plots, and food plots need to be adjacent to each other to provide the maximum benefit.

Make a Sand Tracking Station

Curious to know what critters frequent your property? A tracking station can attract wildlife to a particular spot long enough to leave tracks which you can later identify. Fill a 5 gallon bucket about $\frac{3}{4}$ full with play sand and mix in a large (32 oz.) bottle of unscented mineral oil from the drug store (using oil makes the sand retain moisture better than using water). Find a spot of bare ground, or use a shovel to scrape an area bare in your yard or in a field. Spread out the sand in a smooth layer; the station should be at least 20 to 24 inches wide. Put a strong-smelling bait in the middle, such as sardines or tuna fish. Leave the station overnight and check it in the morning. You are likely to see tracks of common animals like opossums, raccoons, foxes—and probably a few neighborhood dogs! Use a field guide of animal tracks from your local library to identify your visitors.



Did You Know? Fluffy's a Killer

A free-roaming domestic cat can kill between 100 to 200 birds and small mammals each year. That may not sound too bad, until you do the math. There are over 60 million pet cats in the United States, and only 35 percent of them are kept indoors; this means that over 40 million are allowed to roam free at least some or all of the time. Add to that another 60 million stray or feral cats, and there's a lot of non-native predation going on! These consummate predators are taking a silent toll on wildlife: 60 to 70 percent of the animals they kill are small mammals; 20 to 30 percent are birds; and up to 10 percent are amphibians, reptiles and insects. Ground-nesting songbirds are particularly vulnerable. Although habitat loss and fragmentation are still the leading causes of declining bird populations, domestic cat predation compounds the problem. In addition, free-roaming cats are formidable competitors with native predator species. Most people assume that if they keep their pet cat well fed, it will not harm wildlife while it prowls about outside. Au contraire! Well-fed cats are proven to kill at the same rate as hungry ones. The solution? Keep cats indoors. Visit the American Bird Conservancy web site for other aspects of this issue, at www.abcbirds.org

Cats make wonderful pets, but considering their natural hunting abilities, allowing them to roam freely outdoors can lead to the needless killing of birds and other small animals.

Learning More...

Available from the Virginia Department of Game and Inland Fisheries, call (804) 367-9369:

- *Beyond the Food Patch*—an excellent guide to restoring open land habitat that benefits small mammals and birds
- *Native Warm Season Grasses for Virginia and North Carolina*—a good companion to the above, this 10-page booklet outlines how to establish and maintain meadow habitats that benefit wildlife and that can also be used by farmers to graze cattle.
- *Trapping and Furbearer Management*—techniques for managing predators.

Useful Web Sites:

- "Predators to the Wild Turkey," a factual paper about research conducted by the Mississippi State University Extension Service: http://msucares.com/wildfish/turkey_predator.html
- "Birds and Wildlife as Grasshopper Predators," an interesting article that details the

importance of bird predation on an abundant, open-land insect, the grasshopper; found in the USDA's *Integrated Pest Management Handbook* at www.sidney.ars.usda.gov/grasshopper/Handbook/I/i_10.htm

- The Raptor Information Center of the University of Minnesota offers educational material about hawks, owls, and other predatory birds. Find teaching activities about the osprey, including a lesson on predator-prey relationships. From the home page at www.raptor.cvm.umn.edu/ click on "Learn About Raptors" and then "Teacher Lesson Plans."
- Free educational resources available at www.karolmedia.com. Look for "A Home for Pearl," a video and teacher's guide (pre-K to 6th grade). Originally produced in 1990 by the U. S. Fish and Wildlife Service National Fish and Wildlife Foundation, the kit contains lesson plans on habitats and predators. Another good teaching site is the Eisenhower National Clearinghouse, at www.enc.org/resources/. On the home page, click on "Across the Curriculum," then click on "Curriculum Resources." □





Journal

VDGIF 2002 Calendar of Events

November 2: *Family Falconry Day*, Camp Virginia Jaycee, Roanoke. For information call (804) 367-6351.

December 13-14: *Women's Deer Hunt*, York River State Park. For information call (804) 367-6351. □

Hunters "Get HIP" It's the Law.

All migratory bird hunters must be certified through the Harvest Information Program (HIP) before they can legally hunt any kind of migratory birds in the United States. If you hunt migratory birds without being certified you can be ticketed and fined. Hunter participation in this program is critical for conservation of migratory bird resources and protection of the hunting heritage. To register, hunters can call 1-800-938-5262 or use the Department's Web site to register on-line at www.dgif.state.va.us. □

Virginia Wins the 2002 4-H Wildlife Habitat Evaluation Contest

Virginia's 4-H Wildlife Habitat Evaluation Program (WHEP) team took first place in the team competition at the 2002 4-H WHEP National Contest near Wooster, OH, on July 27. Tennessee's team placed second, and Alabama's team took third. The contest was held at Killbuck Wildlife



Front row left to right: Josh Salatin, Augusta County, and Emily Smith, Loudoun County. Back row left to right: Rosemary Martin and Jordan Clough, Loudoun County.

Management Area and Ohio State University and Agricultural Technical Institute.

The contest, which is held annually in different regions of the country, attracted 98 4-H participants and more than 45 coaches and guests from 26 states. Participants judged wildlife habitat in the wetlands region using habitat evaluation skills they learned through their local 4-H WHEP training.

Contestants individually judged the suitability of habitat for wildlife species through on-sight evaluation and aerial photographs. As teams, they also wrote urban and rural wildlife management plans for nine wildlife and fish species.

Alabama team member John Mullins took first place in the indi-

vidual competition. Georgia's Melissa Jamison and Alabama's Jessica McGalliard placed second and third respectively.

Participants spotted sandhill cranes, wood ducks, and Canada geese as they competed in the rural management practices events held on Killbuck Wildlife Management Area. Participants were treated to lively recreational activities including canoeing and a tour of Amish Country, campfire activities, a dance, and hours of swimming, mountain biking, horseback riding, fly fishing training, shooting sports activities, and sightseeing.

The national contest is sponsored by the U.S. Fish and Wildlife Service, International Paper, the Rocky Mountain Elk Foundation, and the National Rifle Association, and many local sponsors including Ohio Division of Natural Resources, Ohio 4-H Foundation, numerous local chapters of Pheasants Forever, Ohio State University School of Natural Resources, White-tails Unlimited, Western Reserve Chapter, Ohio Chapter The Wildlife Society and numerous chapters of the Izaak Walton League of America. Other sponsors of the program and national manual include The Ruffed Grouse Society, Wildlife Forever, and USDA Cooperative Research, Education & Extension. Tall Timbers Research Station, Tallahassee, Florida, donated custom shooting shirts for the winning team and coaches.

WHEP is a 4-H youth natural resource program dedicated to teaching wildlife and fisheries habitat management to junior and senior level (ages 8-19) youth in the United

States. WHEP won the 1996 Wildlife Society Conservation Education Award. The Wildlife Society is the professional organization that certifies wildlife biologists nationwide.

"The goal of WHEP is to teach our nation's youth how to be wise stewards of our wildlife and fisheries resources," said Charlie Lee, incoming WHEP National Committee Chair. "Although the competition is important, it is not the sole focus of the program. The kids are exposed to field trips and fun activities as well."

"WHEP events help participants to develop speaking, critical thinking skills, and skills for working as a team. The kids are given real world situations and work together to provide solutions to natural resource problems that managers face," said Dr. Ron Masters, outgoing WHEP National Committee Chair.

"The kids that participate in WHEP eventually become members of the work force that know how to create better habitat for wildlife and fish, no matter what professional field they have chosen," said Dr. Jim Armstrong, National Committee member. "These are also the people that end up making informed decisions about wildlife issues at the ballot box." □



What Goes Around...

by Jennifer Worrells

Justice is often served in unusual ways, as Chesterfield game warden, Jim Croft, found during a series of unusual arrests over the span of his career. The story began years ago when he was the new student in his seventh grade class. As Croft was leaving school, another boy rode by on a bicycle and hit him in the head with a clipboard. Croft swore to get

revenge, but the opportunity never presented itself while the boys were in school.

Years later, when Croft was a police officer in Sussex County, he went to Norfolk to complete an investigation. While having lunch in a sub shop, an unsavory character approached the officer and offered to sell him marijuana. Croft arrested the perpetrator. He found out in court that the suspect had the same name as the boy who hit him in the seventh grade; Croft dismissed the incident as coincidence and forgot about it.

Time passed, and Croft became a game warden in Chesterfield County. One hot summer day, the warden was checking licenses when he noticed an older gentleman and a familiar rough-looking man fishing on the bank. The men noticed Croft and the younger one put down his pole. Croft immediately went to check their licenses; as suspected, the man of questionable appearance had no fishing license. As the warden looked closer, he realized this fellow was the same one he had arrested in the sub shop years ago.

When the individual questioned Croft about the license check, the officer said to him, "Well, it's not like you tried to sell me drugs in a sub shop, is it?"

The suspect's jaw dropped as he quickly recognized who he was dealing with. Croft then asked him about his middle school and his teachers. Croft realized the violator was indeed the wielding clipboard offender.

A background check with dispatch revealed that the transgressor had a suspended driver's license also; Croft then waited to see which man had driven to the fishing spot. Naturally, the suspect climbed behind the wheel of the truck, so the warden stopped the two men after they had proceeded down the road. As Croft wrote the additional summons, the offender leaned out the window and said, "You're not still angry about that incident in middle school are you?" □

Fly Fishing Basics

Here's your chance to learn more about one of the fastest growing and popular outdoor activities, fly-fishing, and it's free to the public. The Bill Wills Chapter of Trout Unlimited, the Federation of Fly Fishers, and the Virginia Department and Game and Inland Fisheries will be offering courses in basic fly fishing beginning Saturday, November 2, and every first Saturday of the month November through March 3, 2003. Classes begin at 10:00 a.m. in the activities building located at Northwest River Park, Chesapeake, Virginia. Instructions in casting, fly-tying, and matching your equipment for a better fly fishing experience are just a few of the helpful activities taking place each month.



No registration is required, and the sessions are free. You may bring your own equipment if you like, but it's not required. For more information contact the Northwest River Park at (757) 421-7151, Bill Campbell at (757) 499-1172, or e-mail flytyer53@hotmail.com. □

Fort A.P. Hill "Save the Fish" Project Rescues Finned Friends from Drought-Stricken Pond

by Ken Perrotte

The severe drought of 2002 has impacted vegetation, dried up shallow wells, and lowered rivers and ponds to drastically low levels.



VDGIF and Fort A. P. Hill biologists rescued and relocated more than 2,700 fish due to severe drought conditions.

Aquatic life in these ponds has suffered greatly.

At Fort A.P. Hill, in Caroline County, dropping water levels in several ponds generated concern. In one major pond, Buzzards Roost, water levels were dropping at a rate of 8 inches a month, impacting recreation and military training for troops using the site to practice Reverse Osmosis Water Purification.

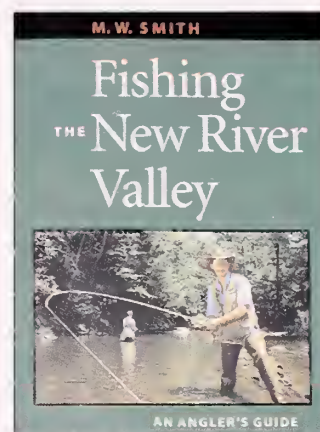
The pond, home to bass, crappie, catfish, and several sunfish species, was rapidly reaching the point where the fish would begin dying due to thermal stress and overcrowding as a result of decreasing habitat.

Drastic times call for drastic

measures, and the great fish lift of 2002 was born. More than 2,700 fish were captured and restocked into an alternate pond, Lonesome Gulch, in July and August. Fish were captured using an electro-fishing boat. The post's fisheries biologist, Brian "Scutter" Lee, led the team efforts.

Lee said the total value of fish collected was \$17,878. Replacement costs were determined using the Virginia Department of Game and Inland Fisheries fish replacement values. Only 14 fish perished during the capturing, transporting, and restocking process. Based on mean population estimates calculated for largemouth bass, approximately 37 percent of the bass were captured

and restocked during July and August. The fish rescue continued through the summer and into the fall. □



Book Review

reviewed by Ron Messina

Fishing the New River Valley

An Angler's Guide

by M.W. Smith

\$12.95 (ISBN 0-8139-2098-1, pub.

April 2002, University Press of Virginia, map plus photos, paperback only).

Weighing in at just 94 pages, *Fishing the New River Valley* packs an enormous amount of information into a small book an angler can carry streamside. This no-nonsense "pocket guide" features a lot of solid facts anyone fishing the New River Valley needs: specifics on where to find and catch trout and small-mouth bass, detailed river and lake descriptions, personal streamside accounts, and even directions to food and lodging.

Smith has fished the waters of the New River Valley for over 25 years and knows their secrets; as proprietor of Greasy Creek Outfitters, he understands the kind of questions anglers ask and he provides answers. From floating the New River on a walleye trip, to fishing for native brook trout in the mountains, all the baits, flies, access points and dangerous rapids are noted. If you are planning to fish waters of the New River Valley, this little book will be worth its weight in gold. □

Fulfilling a Dream

by Mitzi Lee

The Wildlife Foundation of Virginia dedicated Fulfillment Farms this past spring in memory of the late Thomas Griffin Herring, an ardent and early supporter of America's conservation movement and a life-long champion of hunting and fishing in Virginia. He served for many years on the Virginia Commission of Game and Inland Fisheries, beginning in 1933. The dedication of this pristine property was made possible by Mr. Herring's grandson, the late Thomas Herring Forrer, who bequeathed this property to The Wildlife Foundation of Virginia.

Over a 30-year period, dating back to the 1950s, Thomas Forrer had the foresight to begin acquiring land with the sole intent of one day donating it for conservation and for the enjoyment of outdoor enthusiasts. Mr. Forrer completed the land acquisition in 1985, which comprised nearly 2,000 acres of extraordinary habitat for many native Virginia species. This gift is an example of how individuals can contribute to and leave a legacy of conservation stewardship.

Among opportunities offered on the property are spring turkey and fall deer hunts specifically designed for youth and women in the outdoors. These successful programs, offered in conjunction with the Virginia Department of Game and

Inland Fisheries, serve as model programs to introduce our young people and women to quality outdoor experiences that will encourage them to keep coming back.

The mission of The Wildlife Foundation of Virginia is "To assist in the conservation, protection and enhancement of the wildlife and habitat resources throughout the Commonwealth of Virginia." The Foundation's primary emphasis is on land acquisition and the development and enhancement of wildlife habitat, either through the direct purchase of land, donations, or the transfer of industrial properties that are suitable for conservation programs. In keeping with its mission, the Foundation focuses on partner-

ships with private sector individuals and organizations interested in the conservation and sustainable use of Virginia's outdoor resources and cooperative arrangements with government agencies and other organizations whose mission and objectives include natural resource management and habitat protection.

The Wildlife Foundation is currently engaged in a fund-raising campaign to provide funds for acquisition of similar properties around the Commonwealth. To learn more about the Foundation, its programs and ways you can help, contact Jason Hester, Executive Director at 804-285-2250 or email JASON.HESTER@Longandfoster.com. □



Thanks to the assistance of the Wildlife Foundation of Virginia, VDGIF was able to offer the first of many youth deer hunts at Fulfillment Farms last hunting season.

RECIPES

by Joan Cone

Ideas For Ground Venison

When butchering deer, keep a pair of bowls handy. Have one for small scraps to be used as deer burger. The other is for thicker scraps which can be cut into chunks for stew.

Never add fat to your ground venison until ready to cook, as it does not freeze well. After grinding, use a scale and make one pound packages. Wrap twice in Saran Cling Plus or equivalent. If you have a vacuum packer, place your wrapped meat within the special bags for sealing in your machine. Lacking a vacuum packer, place packages in heavy duty plastic freezer bags and draw out air with a straw before closing. Properly sealed, frozen ground venison will keep more than a year without change in color or flavor.

Menu

Fried Oysters
Venison Lasagna
Tossed Italian Garden Salad
Maple Fruit Crisp

Fried Oysters

1 to 2 cups dry pancake mix
1 pint shucked oysters, drained
Oil for frying
Cocktail or tartar sauce

Put pancake mix into a large shallow bowl. Add oysters, a few at a time and toss lightly until well-coated. Shake off excess breading and place oysters in wire basket. Fry in oil at 350°F. until golden brown, 1½ to 2 minutes. Drain on paper towel. Repeat process until all oysters are cooked. Serve with cocktail or tartar sauce. Makes 4 servings, about 8 oysters each.

Note: Equal results can be obtained by frying oysters in 1 to 2 inches hot oil in a large fry pan. Keep turning oysters until browned.

Venison Lasagna

1 pound ground venison
2 garlic cloves, minced
2 cans (8 ounces each) no-salt added tomato sauce
½ cup water
1 can (6 ounces tomato paste)
2 bay leaves
2 teaspoons sugar
1 teaspoon minced fresh parsley
1 teaspoon Italian seasoning
1 package (16 ounces) lasagna noodles, cooked, rinsed, and drained
1 cup ricotta
1 small zucchini, sliced and cooked
1 cup (8 ounces) sour cream

In a skillet, cook venison and garlic over medium heat until meat is no longer pink; drain. Add tomato sauce, water, tomato paste, bay leaves, sugar, parsley, and Italian seasoning; mix well. Bring to a boil and reduce heat. Simmer, uncovered, for 30 to 40 minutes. Discard bay leaves. Spread ½ cup meat sauce in a 13 x 9 x 2-inch baking dish coated with nonstick cooking spray. Arrange 5 noodles over sauce, cutting to fit. Spread with ricotta. Cover with 5 noodles, half the meat sauce and the zucchini. Cover with 5 noodles and sour cream. Top with remaining noodles and meat sauce. Bake, uncovered, in a preheated 350°F. oven for 30 to 35 minutes or until heated through. Makes 12 servings.

Tossed Italian Garden Salad

10 cups torn romaine lettuce
2 cups sliced mushrooms
2 plum tomatoes, chopped
1 small zucchini, sliced
¼ cup chopped red onion, optional
¼ cup chopped fresh basil leaves
½ to ¾ cup Italian dressing

Toss greens, vegetables and basil with dressing. Makes 6 servings.

Maple Fruit Crisp

5 medium cooking apples, peeled, cored, and thinly sliced
2 firm ripe Anjou or Bartlett pears, peeled, cored, and thinly sliced
⅔ cup fresh or frozen cranberries
2 tablespoons golden raisins
3 tablespoons pure maple syrup
1 tablespoon flour
Topping:
¼ cup flour
¼ cup oats
2 tablespoons finely chopped walnuts
¼ cup firmly packed light brown sugar
1 teaspoon cinnamon
¼ teaspoon salt
5 tablespoons cold butter, cut into bits
3 tablespoons pure maple syrup

Preheat oven to 350°F. In a large bowl, combine the first 5 ingredients. Toss to coat well. Sprinkle on the flour and toss again. Scrape the fruit into an 8 x 8-inch pan and smooth the top.

To make the topping: Combine the first 6 topping ingredients. With your fingertips, rub in the butter bits until coarse crumbs form. Stir in the maple syrup just until the crumbs are evenly moistened (the mixture will be a little gooey). With your fingers, sprinkle the mixture on top of the fruit, breaking up any large chunks. Bake 40 to 50 minutes, or until the filling is bubbly and the apples are tender. Serve warm or at room temperature. Serves 4 to 6.

□





On The Water

by Jim Crosby

Winter Lay-up Tale

Winter lay-up is always a sad time for the recreational boater because it marks the end of the boating season and the prelude to freezing rain, ice and snow. As sad as it is, it can be a lot sadder if you miss one of the important steps in the process. Of course you can avoid all the trials and tribulations by having your vessel winterized by professionals. Most will guarantee their work and save you the worry of finding a problem when you de-winterize.

There are a few of us who store our boats too far away from professional help and/or simply prefer to do it ourselves. My tale comes from a combination of the two.

Of course, your biggest concern during winterizing is to properly protect your power plant because a missed step here can result in an expensive discovery next spring. Your first concern is to drain all water from your vessel and especially all parts of your engine. As we all know, water expands when frozen and builds up such tremendous force that it can crack solid steel, so we sure don't want it trapped anywhere it can break something.

Interior parts of your power plant that normally circulate water for cooling, can also rust if left open to the air for the entire winter. So, not only do we have to drain the water, we should coat the interior with a rust inhibitor. Of course, refilling those water chambers with an antifreeze and rust inhibitor is the best course of action. Here, I recommend using a special antifreeze made for recreational facilities that will not

poison the environment when expelled in the spring.

Many think of changing the oil to protect the engine during the summer fun. Manufacturers recommend changing the oil while winterizing to protect the engine during winter lay-up and start off the season with fresh oil—protection for both seasons.

Everybody knows that an empty or half-full tank will collect condensation inside during temperature changes. That condensation builds up all winter to drop into your gas and collect in the bottom of your tank. Vigorous movement of your boat and the two mix causing serious problems when fed through the carburetor. Even if you don't understand this phenomenon, just go on and fill your tank after each trip on the water. Don't fall prey to the common practice of only filling up before a trip and never, ever store your boat over the winter with anything less than full gas tanks. Adding a fuel stabilizer is a must as well!

Another step in winterizing your power plant is to spray your wires and exposed metal parts with a rust and moisture inhibitor available at most supply centers. A carburetor solvent should be sprayed into the air intake to keep the gas from jelling in the jets over the winter as well.

Finally, you should remove all those items that can be affected by freezing temperatures like first aid kits, flashlights, binoculars, compass, PFDs, and fire extinguishers, etc.

Make sure your wet-cell battery is

kept charged because a discharged battery will freeze and destroy itself.

And at last, please remember this is not, and cannot be, an all-inclusive guide to winter lay-up. I sincerely recommend that if you decide to do-it-yourself, obtain a copy of the manufacturer's instructions and follow them absolutely because to do otherwise can be very expensive. Trust me, I goofed on a winter lay-up once and it cost me \$1,200 in shop repairs. As a matter of fact, most of what I know about boats and boating, I have learned from the many mistakes I have made over the years! Is there any other way? □



Winterizing your boat not only protects your investment but assures that everything will be shipshape for next season. Photo by Lee Walker.



Backyard



story and photos by Marlene A. Condon

Flowers Easy to Grow From Seed For Wildlife



Cosmos is a lovely plant that germinates and grows well in Virginia.

This is the time of year when seed catalogs have arrived or on their way through the mail. Thus, it is a good time to look for the kinds of seeds that are useful to wildlife, easy to grow (i.e. germinate well), and pretty and /or fragrant for people to enjoy.

Cosmos (*Cosmos bipinnatus*) is a great plant for the cultivated sunny garden, especially now with drought becoming a common problem in Virginia. Tolerant of poor soil, high temperatures, and little water, Cosmos flowers will thrive and delight the home gardener with lovely daisy-like flowers on tall stems with

ferny foliage. The flowers of "Sensation Mix" are white, rose, and pink. They are made even more colorful by the birds and butterflies attracted to them!

Butterflies have no trouble perching on the flat blooms to feed on nectar. After they and other insects have fertilized the blossoms, green seeds draw in lots of bright-yellow American goldfinches.

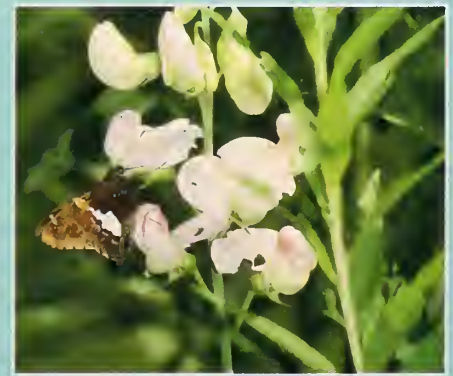
The zinnia is another plant that withstands high heat and does not have to be "babied." Unfortunately, it is more difficult nowadays to find the kind of zinnias that are wonderful wildlife plants. Most of the zinnias in catalogs have double blossoms, but double-flowered varieties of plants are not useful to wildlife. The numerous petals that comprise each flower make it difficult or impossible for insects to reach the nectar.



Zinnias comes in many colors and is an easy plant for a child to grow.

Allow at least 12 inches of space between each zinnia plant to minimize its susceptibility to powdery mildew. However, this fungus is only a threat to your sense of aesthetics and not a threat to the plant, so do not try to treat your zinnias with fungicide if the whitish mildew appears on the leaves. Finches will eat the seeds of zinnias so leave the dried plants standing when fall arrives.

Two other kinds of plants that grow easily from seed are lance-leaved coreopsis (*Coreopsis lanceolata*) and perennial pea (*Lathyrus latifolius*). Both have lots of nectar for insects. Coreopsis provides seeds for numerous species of birds during fall and winter and perennial pea plants often support aphids that attract goldfinches during the growing season and ruby-crowned kinglets well into winter. □



Grow perennial pea vines, and you will have silver-spotted skippers most of the summer, as they are quite attracted to these flowers for nectar.



story and illustration
by Spike Knuth

Naturally Wild



Opossum *Didelphis virginiana*

Many of the sayings or terms we use in our language today find their origins in the manners and habits of animals, such as "busy as a beaver," "sneaky as a snake," and "crazy as a loon." One of the most common is "playing 'possum," because of the opossum's habit of feigning death to discourage harassment. During this act, it will actually reduce its pulse and heartbeat and go limp.

The opossum belongs to an order of pouched animals, of which they are the only North American member. It has long, coarse fur; a sharp, slender muzzle; prominent, thin, naked ears; short legs, and a long, grasping tail. It is very rat-like in appearance.

Opossums live in thickets, woodlands, swamps, along streams, in orchards, around farms, and they frequently wander into the suburbs and cities. They'll eat a wide variety of vegetable and animal matter, with a preference for flesh. Opossums will dig for insects and grubs, and will eat carrion and man-produced garbage, as well as birds, small rodents, frogs, fish, bird eggs, and it has been known to raid the hen house! They are also fond of nuts, and vegetables, wild or cultivated fruits, including persimmons, apples, and berries. It will even visit the garden to feed on disposed squash, melons, and pumpkins.

Opossums live in the cavities of hollow trees, fallen logs, rock piles, old squirrel nests, brush piles, trash heaps, and old outbuildings. It makes a nest lined with leaves and grass, which it collects by mouth

and pushes it back under its belly to its tail, held in a loop, and drags the bundle to its nest. They may even move in with a skunk!

Young opossums are born in January to March, only 13 days after conception. There are 12 to 18 in a litter which would barely fill a teaspoon. At this early stage each weighs about a 15th of an ounce, and their transparent bodies reveal internal organs. Mama 'possum has a fur-lined pouch on her belly in which she carries her babies. She is capable of tightening up the muscles around the opening so her tiny offspring won't fall out as she moves about.

To feed and grow, the little opossums must climb up to one of 12 of the female's teats. Once attached, they seldom let go. Obviously, some will not make it and die long before maturity. They remain in or close to the pouch for about two months, when they reach mouse-size. They now cling to the mother, often traveling on her back until old enough to travel on their own, which is at about three months. Second litters are born in May to early June.

Opossums are nomadic and nocturnal animals, wandering far and wide. They are excellent climbers, with hind feet being

almost hand-like with a long flexible toe that can meet and close with any of its other toes, giving it the ability to grasp branches. They are also surprisingly strong swimmers. It is also able to use its tail for grasping and hanging.

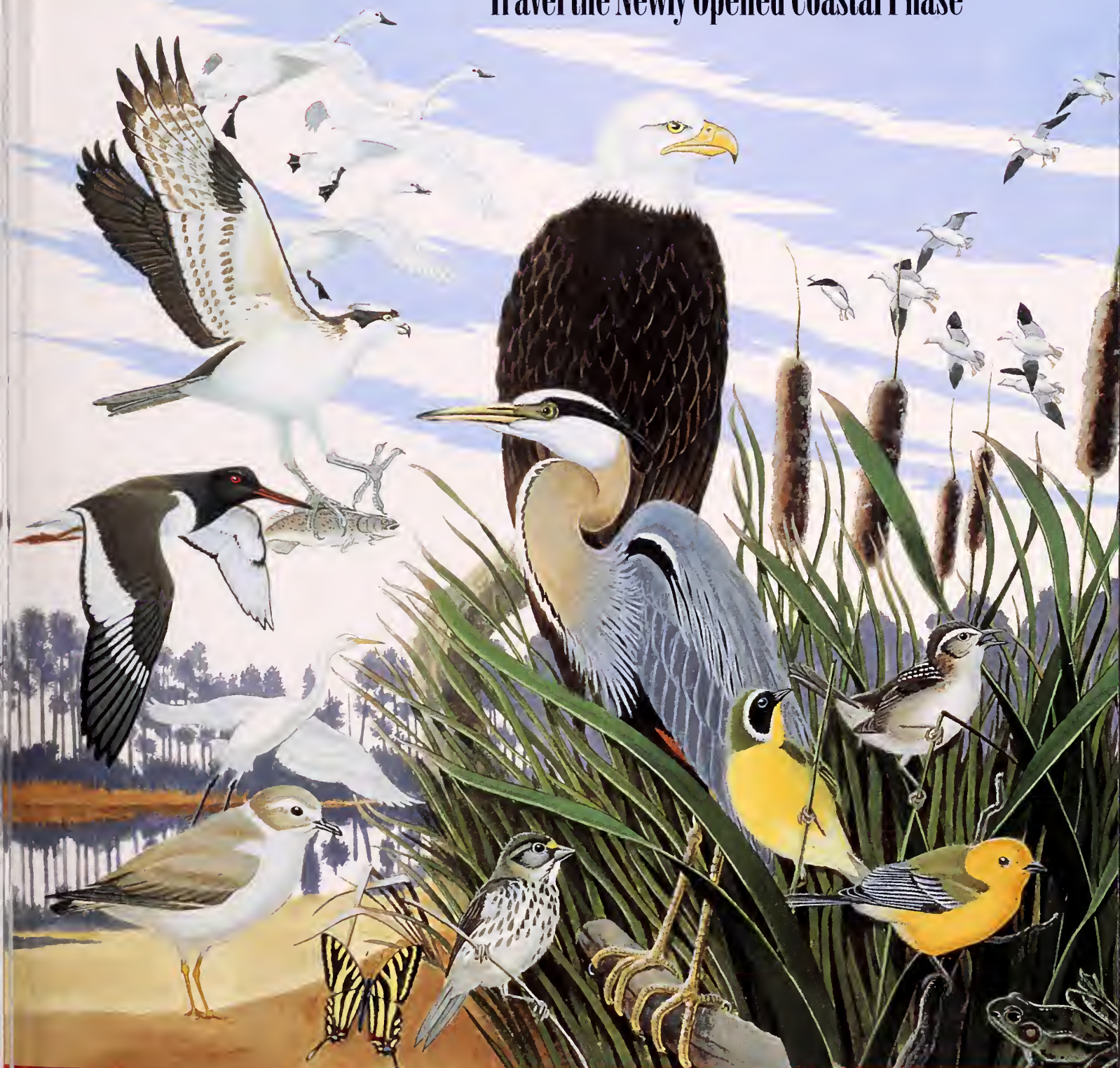
Opossums are considered semi-hibernators, meaning that they will curl up in some warm place during extreme cold spells, but will remain active in some fairly cold temperatures, witnessed by the fact that many actually freeze their ear tips and tail at times. □



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